



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,522	03/01/2004	Seth M. Demsey	MS306914.01 / MSFTP571US	9910
27195	7590	05/13/2009	EXAMINER	
TUROCY & WATSON, LLP 127 Public Square 57th Floor, Key Tower CLEVELAND, OH 44114			NGUYEN, VAN H	
			ART UNIT	PAPER NUMBER
			2194	
			NOTIFICATION DATE	DELIVERY MODE
			05/13/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket1@thepatentattorneys.com  
hholmes@thepatentattorneys.com  
lpasterchek@thepatentattorneys.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/790,522	<b>Applicant(s)</b> DEMSEY ET AL.	
	<b>Examiner</b> VAN H. NGUYEN	<b>Art Unit</b> 2194	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-12,14-24,26-33 and 38-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-12, 14-24, 26-33, and 38-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

1. This communication is responsive to the Amendment filed 01/30/2009.

Claims 1, 2, 4-12, 14-24, 26-33, and 38-40 are currently pending in this application.

### **Claim Rejections - 35 USC § 101**

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 19, 29, 31, 38, and 39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

**Regarding dependent claim 9**, the Examiner notes that a computer-readable medium having stored thereon computer-executable instructions is directed to statutory subject matter so long as the language of the claim is not supported in the Specification with non-statutory embodiments (i.e., signals, transmission mediums and the like). See *In re Nuijten*, 500 F.3d 1346, 1357 (Fed. Cir. 2007) (A claim directed to computer instructions embodied in a signal is not statutory

under 35 U.S.C. § 101).

In the present case, Applicant's Specification discloses that the computer readable medium (that includes signal bearing media) is intended to broadly encompass "a modulated data signal such as a carrier wave." (Spec. page, 15). Because Applicant's claims broadly read on signals and other non tangible transmission mediums, the Examiner concludes that claim 9 is directed to non-statutory subject matter.

**Regarding independent claim 29**, the Examiner notes that a computer-readable medium having computer-executable instructions is directed to statutory subject matter so long as the language of the claim is not supported in the Specification with non-statutory embodiments (i.e., signals, transmission mediums and the like). See *In re Nuijten*, 500 F.3d 1346, 1357 (Fed. Cir. 2007) (A claim directed to computer instructions embodied in a signal is not statutory under 35 U.S.C. § 101).

In the present case, Applicant's Specification discloses that the computer readable medium (that includes signal bearing media) is intended to broadly encompass "a modulated data signal such as a carrier wave." (Spec. page, 15). Because Applicant's claims broadly read on signals and other non tangible transmission mediums, the Examiner concludes that independent claim 29 and claims 30-31 that depend therefrom are directed to non-statutory subject matter.

**Regarding independent claim 38**, the claim recites a “**system**” comprising “*means for receiving*”, “*means for notifying*”, “*means for returning*”, “*means for filtering*”, and “*means for transmitting*”. As currently recited the “system” comprises only computer software element(s). Thus, the claim is a program per se and does not fall within any of the four enumerated categories of patentable subject matter in section 101.

For the same reasons discussed supra with respect to independent claim 38, dependent claim 39 falls outside the scope of § 101.

### **Claim Rejections - 35 USC § 102**

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4-12, 14-24, 26-33, and 38-40 are rejected under 35 U.S.C. 102(e) as being anticipated by **Natarajan et al.** (US 6973034 B1).

**As to claim 1:**

Natarajan teaches a system that facilitates a performance enhancement in message-based computing, comprising one or more computing devices (see Figs. 2-5C) configured with:

- a performance-based interface across which a request from a source is transmitted to a destination (col.21, line 10-col.22, line 67); and
- a filter component in communication with the destination that dynamically allows only one or more relevant responses from the destination to transition the interface to the source, the filter component is part of at least one of native code and managed code; wherein the source notifies a native layer that an event handler has attached or detached (col.21, lines 10-61 and col.25, line 3-col.26, line 29).

**As to claim 2:**

Natarajan teaches the source comprises at least one of native code and managed code, and the destination comprises at least one of native code and managed code (see Figs. 14-18 and the associated text).

**As to claim 4:**

Natarajan teaches the destination issues a callback to the source, in response the filter component permits only a relevant response to the callback to be transmitted to the destination (see Figs. 14-18 and the associated text).

**As to claim 5:**

Natarajan teaches the filter component is integrated into an operating system (see Figs. 14-18 and the associated text).

**As to claim 6:**

Natarajan teaches in a small footprint execution environment that has reduced resources (see Figs. 14-16 and the associated text).

**As to claim 7:**

Natarajan teaches the source is part of a managed code framework that includes a graphical user interface application that transmits an event for processing by the destination, which destination is part of native code (see Figs. 14-18 and the associated text).

**As to claim 8:**

Natarajan teaches a classifier that makes an inference about processes that can be automatically performed (see Figs. 14-18 and the associated text).

**As to claim 9:**

Natarajan teaches computer readable medium having stored thereon computer executable instructions (see Fig. 5A).

**As to claim 10:**

Natarajan teaches a computer (see Fig. 5A).

**As to claim 11:**

Natarajan teaches server (see Figs. 3 and 4).

**As to claim 12:**

Natarajan teaches the source is associated with a GUI such that the request receives only the one or more responses from a graphics/windowing/events system that are relevant to the request (see Figs. 14-18 and the associated text).

**As to claim 13:**

Natarajan teaches the source notifies a native layer that an event handler has attached or detached (see Figs. 14-18 and the associated text).

**As to claim 14:**

Natarajan teaches the filter component is notified by the source when an event handler has attached to or detached from a source object, and forwards the one or more responses only when the associated event handlers are attached (see Fig. 15 and the associated text).



**As to claim 15:**

Natarajan teaches the source can dynamically inspect at least one of properties, methods, and events implemented on a source object (see Figs. 14-18 and the associated text).

**As to claim 16:**

Natarajan teaches the source utilizes reflection during initialization of an object to determine the presence of a custom object (see Figs. 14-18 and the associated text).

**As to claim 17:**

Natarajan teaches the source utilizes reflection during initialization of an object to determine if message handling has been modified in a custom object (see Figs. 14-18 and the associated text).

**As to claim 18:**

Natarajan teaches the source utilizes type introspection to determine the presence of a custom object, in response to which the destination is notified that a message associated with the custom object is of interest and will be forwarded from the destination for a lifetime of the custom object (see Figs. 14-18 and the associated text).

**As to claim 19:**

Natarajan teaches a system that facilitates a performance enhancement in message-based computing, comprising one or more computing devices (see Figs. 2-5C) configured with:

- a managed code framework that generates a request (col.21, line 10-col.22, line 67);
- a native code framework that receives the request and issues one or more responses thereto (col.21, line 10-col.22, line 67);
- a performance-based interface between the managed code framework and the native code framework across which the request is passed and the one or more responses are transmitted (col.21, line 10-col.22, line 67); and
- a filter component in communication with the native code framework that dynamically allows only one or more relevant responses of the native code framework to transition the interface to the managed code framework; wherein the filter component is notified by the managed code framework when an event handler has at least one of registered and unregistered from a managed object, and forwards the one or more responses only when the associated event handlers are registered (col.19, lines 8-37; col.21, lines 10-61; and col.25, line 3-col.26, line 29).

**As to claim 20:**

Natarajan teaches the filter component is part of the native code framework (see Figs. 14-18 and the associated text).

**As to claim 21:**

Natarajan teaches the filter component only allows the one or more responses across the interface that are relevant to the request (see Figs. 14-18 and the associated text).

**As to claim 22:**

Natarajan teaches a managed code filter component that is part of the managed code framework (see Figs. 14-18 and the associated text).

**As to claim 23:**

Natarajan teaches comprising a managed code filter component that is part of the managed code framework, which managed code filter processes a callback from the native code framework and only forwards responses from the managed code to the native code that are relevant to the callback (see Figs. 14-18 and the associated text).

**As to claim 24:**

Natarajan teaches the filter component only processes events that are registered (see Figs. 6-7 and 14-18 and the associated text).

**As to claim 26:**

Natarajan teaches the managed code framework source utilizes type introspection during initialization of an object to determine the presence of a custom object (see Figs. 14-18 and the associated text).

**As to claim 27:**

Natarajan teaches the managed code framework utilizes type introspection during initialization of an object to determine if message handling has been modified in a custom object (see Figs. 14-18 and the associated text).

**As to claim 28:**

Natarajan teaches the managed code framework utilizes type introspection to determine the presence of a custom object, in response to which the native code framework is notified that a message associated with the custom object is of interest and will be forwarded from the native code framework for a lifetime of the custom object (see Figs. 14-18 and the associated text).

**As to claim 29:**

Natarajan teaches a computer-readable medium tangibly embodying thereon computer-executable instructions for performing a method of managing messages across a performance-based interface (see Figs. 2-5C), the method comprising:

Art Unit: 2194

- receiving the performance-based interface across which a request from a source is transmitted to a destination (col.21, line 10-col.22, line 67);
- returning one or more responses to the request from the destination (col.21, line 10-col.22, line 67);
- filtering the one or more responses to allow only responses that are relevant to the request; and transmitting the relevant responses across the interface to the source, wherein the source notifies a native layer that an event handler has attached or detached (col.21, lines 10-61 and col.25, line 3-col.26, line 29).

**As to claim 30:**

Natarajan teaches the act of filtering occurs on the destination side of the interface (see Figs. 14-18 and the associated text).

**As to claim 31:**

Natarajan teaches *at least one of the acts of*: transmitting the relevant responses according to priority criteria; transmitting a request from the destination to the source; filtering the one or more responses to allow only responses from the source that are relevant to the request; and transmitting the relevant responses across the interface to the destination (col.21, lines 10-61 and col.25, line 3-col.26, line 29).

**As to claim 32:**

Natarajan teaches method of managing messages across a performance-based interface (see Figs. 2-5C), comprising:

- using one or more processors to perform (see Figs. 2-5C) the following computer-executable acts:
- receiving the performance-based interface between a managed code and a native code (see Figs.6-9B and the associated text);
- registering an event handler for an event of a managed object (see Figs.6-9B and the associated text);
- notifying the native code that the event handler is registered (see Figs.6-9B and the associated text);
- returning one or more responses of the native code associated with the event (see Figs.6-9B and the associated text);
- filtering the one or more responses of the native code to determine the relevant responses associated with event; and transmitting the relevant responses across the interface to the managed code only when the associated event handler is registered (col.19, lines 8-37; col.21, lines 10-61; and col.25, line 3-col.26, line 29).

**As to claim 33:**

Natarajan teaches tracking the attached event with the native code (col.25, line 3-col.26, line 29).

**As to claim 38:**

Note the rejection of claim 32 above. Claim 38 is the same as claim 32, except claim 38 is a system claim and claim 32 is a method claim.

**As to claim 39:**

Natarajan teaches means for unregistering the one or more event handlers when the associated events have expired (see Fig. 8 and the associated text);

**As to claim 40:**

Natarajan teaches processing a request, issued by an application, associated with the event in accordance with a destination process; unregistering the event; notifying an event filter that the event is unregistered; and signaling the application that the event has been unregistered (see Figs. 6-9B and the associated text);

### **Response to Arguments**

4. Applicant's arguments with respect to claims 1, 2, 4-12, 14-24, 26-33, and 38-40 have been considered but are moot in view of the new ground(s) of rejection.

### **Conclusion**

5. The prior art made of record, see PTO 892, and not relied upon is considered pertinent to applicant's disclosure. Applicant should review these references carefully before responding to this office action.

### **Contact Information**

7. Any inquiry or a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM-6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MENG-AI AN can be reached at (571) 272-3756.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/  
Primary Examiner, Art Unit 2194